THE INFLUENCE OF PERCEIVED ENVIRONMENTAL UNCERTAINTY AND BUSINESS STRATEGY ON MANAGEMENT ACCOUNTING SYSTEM (SURVEY ON THE INDONESIA ADVERTISING COMPANIES)

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ABSTRACT: The purpose of this study is to investigate the influence of Perceived Environmental Uncertainty and Business Strategy on the Management Accounting System in Indonesia advertising companies. Data obtained through questionnaire. Questionnaires sent to all companies listed on the Association of Indonesian Advertising Agency, Jakarta Chapter (142 companies) and addressed to the highest authorities in the field of finance/accounting. Of all the questionnaires, 45 (31.69%) were returned and only 34 (23.94%) were completed. Multiple regression analysis was used to hypotheses testing. As expected, results showed that Perceived Environmental Uncertainty and Business Strategy have significant effect on the Management Accounting System.

KEYWORDS: Perceived Environmental Uncertainty, Business Strategy and Management Accounting System, Advertising Companies.

INTRODUCTION

The role of management accounting system (MAS) is providing information to management in pursuit organization's goals (Hilton & Platt, 2011:38; Horngren, et al., 2012:4). These information used in making decisions, allocating resources, monitoring, evaluating, and rewarding performance (Atkinson, et al., 2012:2). A more strategic role of management accounting expressed by Hoque (2004:26) which states that an effective MAS must be able to assess the organization progress on strategic priorities. The same thing was stated by Riahi-Belkaoui (2002:1) that management accounting system includes not only accounting aspects but also includes aspects of organization, decision-making, behavior and strategy. In this context, management accounting information is used more widely to develop, communicate and implement strategies in addition to coordinate decisions about product design, production, and marketing as well as evaluating the performance (Horngren, et al., 2012:26).

Although the role of MAS in the companies is the same, but the empirical studies shows that the MAS is implemented vary from one company to the other companies even though they operate in the same environment (Gordon & Narayan, 1984; Chenhall & Morris, 1986; Govindarajan, 1988; Chong and Chong, 1997; Seaman & William, 2006; Agbejule & Burrowes, 2007; Cinquini & Tenucci 2010; Khan, et al., 2010; Mat, et al., 2010; Nimtrakoon & Tayles, 2010; Schulz, et al., 2010; Fowzia, 2011; Gosselin, 2011; Hoque, 2011; Abdel-Maksoud, et al., 2012; Sandalgaard, 2012).

Variation in MAS in various companies can be explained by contingency theory which states that no one best model generally applicable in all companies. The model is influenced by

Otley (1980) identified three contingency factors that cause variations in MAS, namely: technology, organizational structure and environment. While Chenhall (2003) has identified six contingency factors, namely: the external environment, technology (generic and contemporary), organizational structure, company size, strategy, and culture. In this study, the contingency factors examined are the external environment and business strategy.

This research was conducted in the setting of the service industry, especially advertising. Selection of the setting is done on the basis that the service industry is experiencing significant growth and have a major impact on the change in cost management/management accounting (Hansen, et al., 2009:7; Hilton & Platt, 2011: 55). In the context of Indonesia, advertising is a strategic industry (Thayyeb, 2014). The attractiveness of this industry attracted many foreign investors (Watono, 2013), and even the government has opened up the industry to foreign ownership up to 51%, whereas previously this industry included in the Negative List (Thayyeb, 2014).

The purpose of this study is to investigate: (1) the perception of managers about the environment uncertainty in which they operate, (2) business strategy applied by the companies to gain competitive advantage, (3) to test empirically the effect of perceived environmental uncertainty and the business strategy on the implementation of MAS.

**REVIEW OF LITERATURE**

**Perceived Environmental Uncertainty**

External environment are all elements that exist outside the boundary of the organization and have a potential effect of all or part of the organization (Daft, 2010:140; Robin & Judge, 2012:499). The external environment is a powerful contextual variable that is the foundation of contingency-based research in management accounting (Chenhall, 2003:137). The external environment creates uncertainty for the organization (Daft, 2010:59). Environmental uncertainty is an aspect that has been studied extensively in research in the field of management accounting (Chenhall, 2003:137).

Uncertainty defined as an individual's perceived inability to predict something accurately (Milliken, 1987:136). The similar definition was adopted by Hoque (2004: 90) and CIMA (2005:97) who focused on the concept of perception. In many studies, environmental uncertainty expressed in perceived environmental uncertainty (PEU). The use of perception rather than objective reality of the external environment or the property itself has invited a lot of debate (Milliken, 1987:134; Sharfman & Dean, 1991:682). However Miliken (1987:134) argues that the problem is not idea but the execution of idea.
Business Strategy

The strategy can be defined in various ways (Chrisman, et al., 1988:414; Langfield-Smith, 1997:209), so there is no single, universally accepted definition of strategy (Bhimani, et al., 2008:770; Mintzberg, 1987:12). The term strategy began to be used in the field of business in the twentieth century (Ghemawat, 2002:37), and AD Chandler, Jr. is known as the first to use the term strategy as a managerial tool (Belkaoui, 2002:33). Chandler (1962) defines Business Strategy (BS) as the determination of basic long term goals and objectives of the enterprises and the adoption of the course of action and the allocation of resources necessary for carrying out these goals (Riahi-Belkaoui, 2002:33; Snow and Hambrick, 1980:528).

A business strategy is a plan for interacting with the competitive environment to achieve organization goals (Daft, 2010:65). Hill & Jones (2009:2) mentions that the business strategy is a set of actions that managers take to increase of their company's performance relative to its rivals. The business strategy (BS) can also be defined as an integrated and coordinated set of commitments and actions designed to exploit core competencies and gain a competitive advantage. (Hitt, et al., 2009:4).


Management Accounting System

MAS defined as the set of human and capital resources within an organization that is responsible for the production and dissemination of information deemed relevant for internal decision making (Belkaoui, 2002:9). Horngren, et al., (2002:6) states that the MAS is a formal mechanism for gathering organizing, and communicating information about the organization activities. MAS can also be interpreted as the systematic use of management accounting to achieve organizational goals (Rasid, et al., 2014:128).

MAS can be classified in various ways. Libby and Waterhouse (1996) as adopted by Hoque (2011) and Seaman and William (2006) classifies MAS into 5 (five) sub-systems, are : planning system, control system, costing system, directing systems, and decision-making systems. Abdel-Kader and Luther (2006a; 2006b) classifies MAS into 6 (six) groups, namely : costing system, budgeting system, performance evaluation systems, information for decision-making system and strategic analysis system. While Nimtrakoon & Tayles (2010) MAS classified into 2 groups : traditional MAS and contemporary MAS.

Theoretical Framework and Hypothesis Formulation

Perceived environmental uncertainty (PEU) and business strategy (BS) are two contingency factors that affect MAS (Otley, 1980; Chenhall, 2003; Islam & Hu, 2012). The pressure of global competition and deregulation have transformed the world economy so that more companies change the way their operations, and then it triggers the development of innovation and relevance of management accounting practices (Hansen, et al., 2009:6). Hilton & Platt (2011:54) states that the change in the global competition has influenced MAS. Many changes taking place within the company led to changes in management accounting/cost management, such as changes in global competition, social, political and cultural (Blocher, et al., 2010:7). The influence of business strategy on the MAS also recognizes in literatures. Hoque (2004:26)
states that the business strategy plays an important role in the choice of MAS and an effective MAS must be able to assess the organization’s progress on strategic priorities. MAS is built on business strategy foundation (Riahi-Belkaoui, 2002:33).


Based on the above theoretical framework, the hypothesis is formulated as follows:

- Hypothesis 1 : The MAS is significantly influenced by PEU.
- Hypothesis 2 : The MAS is significantly influenced by Business Strategy.
- Hypothesis 3 : The MAS is significantly influenced by PEU and Business Strategy.

**RESEARCH METHODOLOGY**

**Data Collection**

This research was conducted through a questionnaire survey of all advertising company listed on the Association of Indonesian Advertising Companies, Jakarta Chapter (142 companies). Questionnaires sent by post. The respondents are the highest officer in charge of finance and accounting division (director or manager). Of the total questionnaires (142 questionnaires), 45 (31.69%) returned, and only 34 (23.94%) were filled completely.
Variables Measurement

Perceived Environmental Uncertainty

PEU was measured using 10 items – five points Likert scale. This instrument is modified from the instrument developed by Gordon and Narayanan (1984). Ten questions designed to tap the respondent’s perception about the predictability and stability in various aspects of organization’s industrial, economic, technological, competitive and customer environment. The reliability test show the Cronbach alpha coefficient was 0.758.

Business Strategy

BS was measured using Miles & Snow’s (1978) strategy typology. This instrument consists of 5 items – five points Likert scale to measure the strategic priorities that pursuit by the companies. Five items were designed to select the description which most closely matched their companies. This instrument has been subjected to psychometric assessment (Snow & Hrebiniak, 1980). The reliability test show the Cronbach alpha coefficient was 0.940.

Management Accounting System

MAS was measured using 13 management accounting techniques acquired through extensive search on the management accounting textbooks. These techniques are grouped into three sub-systems of MAS: budgeting system (5 techniques), costing systems (5 techniques), and performance measurement systems (3 techniques). Respondents were asked about the intensity of the implementation of each techniques – five points Likert scale. This instrument is modified from Abdel-Kader & Luther (2006a, 2006b). For each technique are given a brief definition. The reliability test show the Cronbach alpha coefficient was 0.965.

FINDING, DISCUSSION AND CONCLUSION

Most managers (47.06%) have a high perception about environmental uncertainty and rest 52.94% is moderate PEU. Most companies (88.24%) acts as defenders and rest (11.74%) as prospectors. 79.41% companies implements MAS at the high intensity while the remaining (20.59%) at the moderate to low intensity. Data processing uses IBM SPSS20 and multiple regression analysis used to test the hypotheses.

Table 1: Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.736*</td>
<td>.542</td>
<td>.513</td>
<td>5.73358</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), BS, PEU

Table 2: ANOVA*

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>1206.672</td>
<td>2</td>
<td>603.336</td>
<td>18.353</td>
<td>.000*</td>
</tr>
<tr>
<td>Residual</td>
<td>1019.093</td>
<td>31</td>
<td>32.874</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2225.765</td>
<td>33</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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a. Dependent Variable: MAS  
b. Predictors: (Constant), BS, PEU

Table 3: Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>106.954</td>
<td>39.405</td>
<td>2.714</td>
</tr>
<tr>
<td></td>
<td>PEU</td>
<td>-2.006</td>
<td>.970</td>
<td>-2.56</td>
</tr>
<tr>
<td></td>
<td>BS</td>
<td>1.577</td>
<td>.264</td>
<td>.738</td>
</tr>
</tbody>
</table>

Table 3 shows P value for PEU < α (0.047<0,05). Its means H1 is accepted. In other word, PEU have a significant influence on the implementation of MAS. These result parallel with previous studies, i.e : Seaman & William (2006), Mat, et al. (2010), Nimtrakoon & Tayles (2010), Schulz, et al. (2010); Gosselin (2011), Hoque (2011), Abdel-Maksoud, et al., (2012), Sandalgaard (2012).

Table 3 shows P value for BS < α (0.000<0,05). Its means H2 is accepted. In other word, PEU have a significant influence on the implementation of MAS. These result parallel with previous studies, i.e. : Govindarajan (1988), Van der Stede (2000), Al-Khadash & Feridun (2006), Cinquini & Tenucci (2010), Khan, et al., (2010), Mat, et al. (2010), Nimtrakoon & Tayles (2010), Fowzia (2011), Gosselin (2011), Mat & Smith (2011), Akenbor & Okaye (2012), Elhamma & Fei (2013), Kung, et al. (2013).

Overall, Table 2 shows P value < α (0,000 < 0,05). This mean H3 is accepted. In other word, PEU and BS influences the implementation of MAS significantly. Based on the statistical results and the discussion above, generally can be concluded that the PEU and BS did have a significant influence on the implementation of MAS at advertising companies in Jakarta. This result shows that MAS is not a static one but is a dynamics. MAS implementation influenced by many contingency factor (Otley, 1980 ; Chenhall, 2003 ; Islam & Hu, 2012). This result contributes to body of research in MAS especially in contingency-based research in management accounting.

REFERENCE


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APPENDIX: MANAGEMENT ACCOUNTING SYSTEMS

1. **Budgeting Systems**:
   a. Comprehensive budget for annual budget.
   b. Incremental approach for budget preparing.
   c. Payback period for capital budgeting.
   d. Accounting rate of return for capital budgeting.
   e. Net present value for capital budgeting.

2. **Costing Systems**:
   a. Standard costing.
   b. Marginal costing
   c. Departmental Overhead Allocation.
   d. Target costing
   e. Kaizen costing

3. **Performance Measurement Systems**:
   a. Budgetary control.
   b. Balanced scorecard
   c. Benchmarking.
The enterprise has little influence on the environment and therefore, it is important for the company to identify with the environment of its operation and devise its policies in relation to the forces in that environment. According to Shaikh (2010), any policy undertaken in a company is always affected by its environment. The company has implemented different policies and strategies to make its business successful. For example, in order to reinvent its luxury brand status, the company launched the Prorsum designer collection. Business is affected by different factors which collectively form the business environment. These include economic, social, legal, technological and political factors. Environmental uncertainty is when conditions are constantly changing within a business environment. As a result, management has little influence over factors that are outside of the company’s control. For example, the economy could collapse at any time. This would impact the company. New technology could alter the landscape within a given business. One concern that some businesses have today is a shortage of skilled workers to do the work the company needs done in order to make its products. The company may have little control over these circumstances. Companies need to prepare for any changes that might occur so they can quickly respond to these changes. There are several things a company can do to deal with environmental uncertainty. Environmental analysis is the study of the organizational environment to identify factors that can have an impact, either positive or negative, on the organization itself. With environmental analysis, you can better identify the opportunities and threats provided by the business environment. This type of analysis provides company executives with a great deal of sensitivity to environmental signals. And, as you know, forewarned is forearmed. For environmental uncertainty, the respondents perceive high business environmental uncertainty in the last five years at high mean scores of 3.46. Thai directors dominate the respondents companies as shown below. Chongruksut, W. (2009). Organizational Culture and the Use of Management Accounting Innovations in Thailand. Strategic Management Accounting Techniques and Their Effect on the Capital Structure. Academy of Accounting and Financial Studies Journal, 23, 1-19. Kiattikulwattana, P. (2012).